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Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/723,583	<b>Applicant(s)</b> KRAUSE ET AL.
	<b>Examiner</b> Brian O'Connor	<b>Art Unit</b> 2475

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on **16 July 2010**.  
 2a) This action is FINAL.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) **1-38 and 43** is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) **1-38 and 43** is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
     Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
     Paper No(s)/Mail Date \_\_\_\_\_  
 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

1. This office action is in response to applicant's amendment filed on 7/16/2010.
2. Claims 1-38 and 43 are currently pending.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-14 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meggers et al. (US 6,728,270; hereafter Meggers) in view of Heddes et al. (US 6,674,718; hereafter Heddes) and further in view of Yamaguchi et al. (US 6,674,477; hereafter Yamaguchi).

**With respect to claims 1 and 43,** Meggers discloses a method and apparatus for examining an incoming packet stream (AC of Figure 4) then determining if the packets are real-time packet or not (210 of Figure 5) and finally combining the split sub-streams into a single output stream (OI of Figure 4). Packets are entered into both buffers and retrieved from the end of the buffers by an output interface (OI of Figure 4; column 12, lines 1-21). Meggers's calculates a deadline for each packet that enters the system (column 13, lines 20-34).

Meggers fails to disclose determining the capacity of an output buffer scheduled to accept a packet and selecting packets for transmission based one whether the buffer has capacity or not.

Heddes, in an invention related to processing data through several pipes, discloses examining queue levels (132, 136 of Figure 7) when moving data into pipes or buffers (7, 8, 9 of Figure 1A). Heddes further disclose that the output of the examination of the queue levels is used to assign packets to positions in the queues (212, 214, 218, 224 of Figure 10).

Heddes teaches the benefit of increased efficiency while processing data through multiple queues by examining the queues levels or capacity (column 7, lines 27-30). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Heddes with the method and apparatus of Meggers.

Meggers does not disclose a deadline taken from a pre-existing synchronization time reference extracted from a packet in the group of streams.

Yamaguchi, in an invention related to transmitting multiplexed video streams (Abstract; column 10, lines 56-62; see transmitting means such as a coaxial cable, CATV) discloses a deadline (AL with Time stamp to show PTS in Figure 6b for a packet; Communication header with Time stamp to show PTS in Figure 6c for a packet; Priority at application level, Priority in IP level of Figure 32; column 14, lines 47-52; column 13, lines 60-65; where Presentation Time Stamp is a deadline) taken from a pre-existing synchronization time reference (AL with Time stamp in Figure 6b for a packet; Communication header with Time stamp in Figure 6c for a packet) extracted from a

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packet in the group of streams (Bit stream of sound, Bit stream of picture, Streampriority of Figure 24) using to determine that a packet is to be transmitted before other next packet (column 17, lines 10-15; where an overload is stopped by using priority for packet streams; column 36, lines 15-20; where IPv6 priority bits are using to control packet traffic).

Yamaguchi teaches the advantage of better picture-quality and improved video syncing by using a dynamic control for video/audio streams (column 3, lines 19-26; column 3, lines 64-66). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of DeMoney with the method and apparatus of Yamaguchi.

**With respect to claim 2,** Meggers further discloses that packet are read from the queue and transmitted based upon a delivery deadline, and the delivery deadline is converted from a timestamp for priority control (column 11, lines 59-67).

**With respect to claim 3,** Meggers further discloses that every time a packet arrives (210 of Figure 5) the processing will update timestamps and delivery deadlines (column 12, lines 27-31).

**With respect to claim 4,** Meggers further discloses that the delivery deadline is converted from a timestamp for priority control (column 11, lines 59-67).

**With respect to claim 5,** Meggers further discloses that the timestamp is related to a synchronization control packet (column 11, lines 61-65) that has control parameters N and i (column 12, lines 51-65). The control parameter N is related to a

synchronisation entity (SE) of packets (column 12, lines 61-14) and the SE is viewed as equivalent to a next access unit or frame of packets.

**With respect to claim 6,** Meggers further discloses that real-time data is processed in sub-streams (column 9, lines 5-10) that are defined by admission control packets (column 10, lines 4-10). Meggers also teaches that a sub-stream of packets is also viewed as a synchronisation entity (SE) (column 7, lines 19-30).

**With respect to claim 7,** Meggers further discloses that real-time data is processed in sub-streams (column 9, lines 5-10) that are defined by admission control packets (ACPs) (column 10, lines 4-10). ACPs are sent to the network node prior to started real-time packet transmission (column 10, lines 12-23).

**With respect to claim 8,** Meggers further discloses that the timestamp is related to a synchronization control packet (column 11, lines 61-65) that has control parameters N and i (column 12, lines 51-65). The control parameter N is related to a synchronisation entity (SE) of packets (column 12, lines 61-14) and an SE is defined as consisting of video frames (column 6, lines 48-50).

**With respect to claim 9,** Meggers further discloses that the timestamp is related to a synchronization control packet (column 11, lines 61-65) that has control parameters N and i (column 12, lines 51-65). The control parameter N is related to a synchronisation entity (SE) of packets (column 12, lines 61-14) and an SE is defined as consisting of voice packets or VOIP (column 6, lines 50-55).

**With respect to claim 10,** Meggers further discloses that the packets are related to a synchronization control packet (column 11, lines 61-65) that has control parameters

N and i (column 12, lines 51-65). The control parameter N is related to a synchronisation entity (SE) of packets (column 12, lines 61-14) and an SE is defined as consisting of voice packets or VOIP (column 6, lines 50-55).

**With respect to claim 11,** Meggers further discloses that sub-streams are assigned an admission control packet (ACP) (column 10, lines 4-11) and this ACP will define control parameter T for assigning a type to the sub-stream (column 9, lines 50-55).

**With respect to claim 12,** Meggers further discloses that non real-time streams are send to a second queue for FIFO processing (column 11, lines 49-52; column 12, lines 32-36). FIFO processing uses order of arrival for transmitting transmitting packets and it thus represents a time spent waiting in a queue compared to other packets in the queue.

**With respect to claim 13,** Meggers further discloses that sub-streams are assigned an admission control packet (ACP) (column 10, lines 4-11) and this ACP will define control parameter T for assigning a type to the sub-stream (column 9, lines 50-55). And that the arrival of real-time sub-streams with ACPs is considered in the processing of non real-time streams send to a second FIFO queue (column 14, lines 2-14).

**With respect to claim 14,** Meggers further discloses that sub-streams are assigned an admission control packet (ACP) (column 10, lines 4-11) and this ACP will define control parameter T for assigning a type to the sub-stream (column 9, lines 50-55). The ACP will also define a control parameter D for setting a delivery deadline

(column 9, lines 44-49; viewed as equivalent to a waiting time priority). And that the arrival of real-time sub-streams with ACPs is considered in the processing of non real-time streams send to a second FIFO queue (column 14, lines 2-14).

5. Claims 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monta et al. (US 7,039,048; hereafter Monta) in view of Chiussi et al. (US 7,099,330; hereafter Chiussi).

**With respect to claim 15,** Monta disclose a method of combining several streams (250, 252 of Figure 2) into a group of multiplexers (10, 30, 32 of Figure 2) that includes identifying a first multiplex (Figure 2) with a first amount of data (87 of Figure 4A) in a first channel with the amount of data exceeding a first threshold (97 of Figure 4A). Then identifying a second multiplex with a second amount of data (99 of figure 4B) in a second channel with the amount of data not exceeding a second threshold (103 of Figure 4B) and selecting a subset of the group of streams being send over the first multiplex (119 of Figure 4B).

Monta fails to disclose reassigning or transferring a subset to a different multiplex.

Chiussi, in an invention for transmission between sources and destination (Figure 1), discloses checking a first threshold (S610 of Figure 7C) and a second threshold (S730 of Figure 7E) then reassigning or transferring a subset of channels to a different multiplexed channel set (S740 of Figure 7E; column 7, lines 17-24).

Chiussi realizes the benefit of greater service (column 1, lines 45-53) by integrating a BE multiplex service with a GB multiplex service. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Chiussi with the method of Monta.

**With respect to claim 16,** Monta further discloses that the first and second PID are used to notify television receivers of updates to the data-streams (82 of Figure 2).

**With respect to claim 17,** Monta fails to disclose thresholds used to control data loss.

Chiussi, in an invention for transmission between sources and destination (Figure 1), discloses checking a first threshold (S610 of Figure 7C) and a second threshold (S730 of Figure 7E) then reassigning or transferring a subset of channels to a different multiplexed channel set (S740 of Figure 7E; column 7, lines 17-24).

Chiussi realizes the benefit of greater service (column 1, lines 45-53) by integrating a BE multiplex service with a GB multiplex service. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Chiussi with the method of Monta.

**With respect to claim 18,** Monta further discloses a PID (82 of Figure 2).

Monta fails to disclose reassigning or transferring a subset to a different multiplex.

Chiussi, in an invention for transmission between sources and destination (Figure 1), discloses checking a first threshold (S610 of Figure 7C) and a second threshold

(S730 of Figure 7E) then reassigning or transferring a subset of channels to a different multiplexed channel set (S740 of Figure 7E; column 7, lines 17-24).

Chiussi realizes the benefit of greater service (column 1, lines 45-53) by integrating a BE multiplex service with a GB multiplex service. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Chiussi with the method of Monta.

**With respect to claim 19,** Monta further discloses that tuning of HFC carriers (column 14, lines 1-10).

**With respect to claim 20,** Monta fails to disclose prioritizing data-streams and choosing a stream with the highest priority relative to other data-streams and transmitting a data-stream according to the priority.

Chiussi discloses prioritizing data-streams and choosing a stream with the highest priority relative to other data-streams and transmitting a data-stream according to the priority (column 7, lines 60-65; see a minimum guaranteed service share parameter for the GB multiplex).

Chiussi realizes the benefit of greater service (column 1, lines 45-53) by integrating a BE multiplex service with a GB multiplex service. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Chiussi with the method of Monta.

6. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monta in view of Chiussi and further in view of Meggers.

**With respect to claim 21,** Monta fails to disclose determining a deadline for a packet that is moved from a first datastream to a second datastream.

Meggers discloses changing a deadline priority based on the difference of control parameters (column 13, lines 20-34) for all packets moved from a first queue to a second queue (column 14, lines 8-15).

Meggers teaches the benefit of a simpler control mechanism by using control packets to determine stream characteristics (column 5, lines 42-50). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Monta with the method of Meggers.

**With respect to claim 22,** Monta further discloses the tuning of HFC carriers (column 14, lines 1-10).

Monta fails to disclose determining a deadline for a packet moving from a first datastream to a second datastream.

Meggers discloses changing a deadline priority based on the difference of control parameters (column 13, lines 20-34) for all packets moved from a first queue to a second queue (column 14, lines 8-15).

Meggers teaches the benefit of a simpler control mechanism by using control packets to determine stream characteristics (column 5, lines 42-50). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Monta with the method of Meggers.

**With respect to claim 23,** Monta further discloses the tuning of HFC carriers (column 14, lines 1-10). Changing a PID in a cable system is known in the art to cause a change in RF channels.

7. Claims 24-27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Monta in view of Chiussi.

**With respect to claim 24,** Monta discloses a method of combining several streams (250, 252 of Figure 2) into a group of multiplexers (10, 30, 32 of Figure 2) that includes determining that there is real-time data in a subset of data in a first stream (column 13, lines 5-10; column 12, lines 60-66), classifying that data as different from a second subset of data (column 13, lines 26-38; where PID is used to classify the subset of data) and using a selected channel for transmission rather than a second channel (column 14, lines 30-38).

Monta does not disclose determining an available channel capacity of a first channel and an available channel capacity of a second channel and in the even that the available channel capacity of the first channel is sufficient to accommodate a first subset of data selecting that first subset for transmission on the first channel.

Chiussi, in an invention for transmission between sources and destination (Figure 1), discloses checking a first threshold (S610 of Figure 7C) and a second threshold (S730 of Figure 7E) then reassigning or transferring a subset of channels to a different multiplexed channel set (S740 of Figure 7E; column 7, lines 17-24).

Chiussi realizes the benefit of greater service (column 1, lines 45-53) by integrating a BE multiplex service with a GB multiplex service. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Chiussi with the method of Monta.

**With respect to claim 25,** Monta further discloses that the first and second PIDs (82 of Figure 2) are used to notify television receivers of updates to the data-streams (56, 24, 26 of Figure 2).

**With respect to claim 26,** Monta further discloses using PID (82 of Figure 2) and re-tuning user's receivers (column 14, lines 36-39).

**With respect to claim 27,** Monta fails to disclose prioritizing data-streams and choosing a stream with the highest priority relative to other data-streams and transmitting a data-stream according to the priority.

Chiussi discloses prioritizing data-streams and choosing a stream with the highest priority relative to other data-streams and transmitting a data-stream according to the priority (column 7, lines 60-65; see a minimum guaranteed service share parameter for the GB multiplex).

Chiussi realizes the benefit of greater service (column 1, lines 45-53) by integrating a BE multiplex service with a GB multiplex service. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Chiussi with the method of Monta.

8. Claims 28-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monta and Chiussi and further in view of Meggers.

**With respect to claim 28,** Monta fails to disclose determining that a subset of the data streams includes a time indicator and creating a first priority as a function of the time indicator.

Meggers discloses that sub-streams are assigned an admission control packet (ACP) (column 10, lines 4-11) and this ACP will define control parameter T for assigning a type to the sub-stream (column 9, lines 50-55). The ACP will also define a control parameter D for setting a delivery deadline (column 9, lines 44-49; viewed as equivalent to a waiting time priority). And that the arrival of real-time sub-streams with ACPs is considered in the processing of non real-time streams send to a second FIFO queue (column 14, lines 2-14).

Meggers teaches the benefit of a simpler control mechanism by using control packets to determine stream characteristics (column 5, lines 42-50). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Monta with the method of Meggers.

**With respect to claim 29,** Monta fails to disclose determining that a subset of the data streams includes a time indicator and creating a first priority as a function of the time indicator.

Meggers discloses that sub-streams are assigned an admission control packet (ACP) (column 10, lines 4-11) and this ACP will define control parameter T for assigning a type to the sub-stream (column 9, lines 50-55). The ACP will also define a control

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parameter D for setting a delivery deadline (column 9, lines 44-49; viewed as equivalent to a waiting time priority). And that the arrival of real-time sub-streams with ACPs is considered in the processing of non real-time streams send to a second FIFO queue (column 14, lines 2-14).

Meggers teaches the benefit of a simpler control mechanism by using control packets to determine stream characteristics (column 5, lines 42-50). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Monta with the method of Meggers.

**With respect to claim 30,** Monta fails to disclose a time indicator or a time stamp.

Meggers further discloses that the delivery deadline is converted from a timestamp for priority control (column 11, lines 59-67).

Meggers teaches the benefit of a simpler control mechanism by using control packets to determine stream characteristics (column 5, lines 42-50). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Monta with the method of Meggers.

**With respect to claim 31,** Monta fails to disclose determining that a subset of the data streams includes a time indicator and creating a first priority as a function of the time indicator.

Meggers discloses that sub-streams are assigned an admission control packet (ACP) (column 10, lines 4-11) and this ACP will define control parameter T for assigning a type to the sub-stream (column 9, lines 50-55). The ACP will also define a control

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parameter D for setting a delivery deadline (column 9, lines 44-49; viewed as equivalent to a waiting time priority). And that the arrival of real-time sub-streams with ACPs is considered in the processing of non real-time streams send to a second FIFO queue (column 14, lines 2-14).

Meggers teaches the benefit of a simpler control mechanism by using control packets to determine stream characteristics (column 5, lines 42-50). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Monta with the method of Meggers.

**With respect to claim 32,** Monta fails to disclose prioritizing data-streams and choosing a stream with the highest priority relative to other data-streams and transmitting a data-stream according to the priority.

Chiussi discloses prioritizing data-streams and choosing a stream with the highest priority relative to other data-streams and transmitting a data-stream according to the priority (column 7, lines 60-65; see a minimum guaranteed service share parameter for the GB multiplex).

Chiussi realizes the benefit of greater service (column 1, lines 45-53) by integrating a BE multiplex service with a GB multiplex service. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Chiussi with the method of Monta.

**With respect to claim 33,** Monta discloses detecting the subset of packets with a certain PID (82 of Figure 2).

Monta fails to disclose normalizing a parameter for identifying a second subset.

Chiussi discloses prioritizing data-streams and choosing a stream with the highest priority relative to other data-streams and transmitting a data-stream according to the priority (column 7, lines 60-65; see a minimum guaranteed service share parameter for the GB multiplex).

Chiussi realizes the benefit of greater service (column 1, lines 45-53) by integrating a BE multiplex service with a GB multiplex service. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Chiussi with the method of Monta.

**With respect to claim 34,** Monta fails to disclose a quality of service constraints as parameter for scheduling packets.

Chiussi discloses prioritizing data-streams and choosing a stream with the highest priority relative to other data-streams and transmitting a data-stream according to the priority (column 7, lines 60-65; see a minimum guaranteed service share parameter for the GB multiplex).

Chiussi realizes the benefit of greater service (column 1, lines 45-53) by integrating a BE multiplex service with a GB multiplex service. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Chiussi with the method of Monta.

**With respect to claim 35,** Monta fails to disclose deciding that a group of packets from the datastream is ready for transmission.

Chiussi discloses prioritizing data-streams and choosing a stream with the highest priority relative to other data-streams and transmitting a data-stream according to the priority (column 7, lines 60-65; see a minimum guaranteed service share parameter for the GB multiplex).

Chiussi realizes the benefit of greater service (column 1, lines 45-53) by integrating a BE multiplex service with a GB multiplex service. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Chiussi with the method of Monta.

**With respect to claim 36,** Monta fails to disclose prioritizing data-streams and choosing a stream with the highest priority relative to other data-streams and transmitting a data-stream according to the priority. Also Monta fails to disclose determining a buffer is not able to receive a set of data and determining a different buffer can receive a set of data.

Chiussi discloses prioritizing data-streams and choosing a stream with the highest priority relative to other data-streams and transmitting a data-stream according to the priority (column 7, lines 60-65; see a minimum guaranteed service share parameter for the GB multiplex). Chiussi also discloses determining a buffer is not able to receive a set of data and determining a different buffer can receive a set of data (S600 of Figure 7C).

Chiussi realizes the benefit of greater service (column 1, lines 45-53) by integrating a BE multiplex service with a GB multiplex service. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Chiussi with the method of Monta.

**With respect to claim 37,** Monta further discloses that when the packets are transmitted a counter is used (105 of Figure 4B) to check a threshold of primary PID and secondary PID values (82 of Figure 2). When a change flag is detected the network node will change or reclassify the PID of the packets.

**With respect to claim 38,** Monta fails to disclose changing a first priority based on a modified priority difference.

Meggers discloses changing a deadline priority based on the difference of control parameters (column 13, lines 20-34).

Meggers teaches the benefit of a simpler control mechanism by using control packets to determine stream characteristics (column 5, lines 42-50). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Monta with the method of Meggers.

#### ***Response to Arguments***

9. Applicant's arguments filed on 7/16/2010 have been fully considered but they are not persuasive. df.

**A.** Applicant argues, see page 3 (first full paragraph), with respect to claims 1 and 43 that "Only with hindsight impermissibly gained from Applicants' disclosure could one of ordinary skill in the art have arrived at the conclusions reached by the Examiner."

The Examiner maintains the rejection because, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

**B.** Applicant argues, see page 4 (first partial paragraph), with respect to claim 15 that "Step 97 of Monta has nothing to do with determining if an amount of data exceeds a threshold".

The Examiner maintains the rejection because Monta is searching packet streams for a specific symbol (hex 47) and then determine if another symbol occurs about a fixed amount of data (188 bytes) (column 8, lines 1-10). By find the placed of this symbol in 5 or 6 packet Monta has determined that the number of hex 47 symbols is above a threshold of 5 or 6 in the packet stream.

**C.** Applicant argues, see page 4 (last partial paragraph), with respect to claim 24 that "the foregoing is inconsistent with the rejection of claim 15 where the Examiner

takes the position that Monta discloses determining where an amount of data in a first channel exceeds a threshold (how can Monta determine if the data is exceed if it cannot determine channel capacity as acknowledged by the Examiner?"

The Examiner maintains the rejection because find the channel capacity is independent from finding that a threshold has been exceeded in a data flow or channel. Furthermore, the embodiments in claim 15 and claim 24 are separate inventions and are constructed independently from each other.

D. Applicant argues, see page 5 (second full paragraph), with respect to claim 15 that "Chiussi does not disclose or remotely suggest selecting a subset of a plurality of streams being transmitted over a first digital multiplex on a first communications channel and reassigning this subset to a second digital multiplex on a second communication channel based on a determination of channel thresholds".

The Examiner maintains the rejection because Chiussi teaches using unused bandwidth from GB to BE flows (column 7, lines 17-22). The unused or extra bandwidth is reassigned by moving packets from one flow over to a different flow hence a subset of the streams are reassigned.

E. Applicant argues, see page 6 (first full paragraph), with respect to claim 15 that "Determining a buffer backlog is not equivalent to Applicant's claimed identification of a second digital multiplex of a plurality of digital multiplexes having a second amount..."

The Examiner maintains the rejection because when determine if there are no backlogged flows that scheduler of Chiussi is making a determination or check of a threshold for data packets moving through the scheduler on a time-based threshold (column 12, lines 55-60).

F. Applicant argues, see page 6 (second full paragraph), with respect to claim 15 that "distribution of service flow from GB to BE and does not represent a 'transfer of a subset of channels to a different multiplexed channel set' as assumed".

The Examiner maintains the rejection because Chiussi teaches using unused bandwidth from GB to BE flows (column 7, lines 17-22). The unused or extra bandwidth is reassigned by moving packets from one flow over to a different flow hence a subset of the streams are reassigned.

G. Applicant argues, see page 7 (first full paragraph), with respect to claim 24 that "section has nothing to do with channel selection based on channel capacity or the existence of real-time data. In Monta, there is no need (or mention) of assignment of a stream to a particular communication channel."

The Examiner maintains the rejection because the claim is directed to combining streams and Monta has multiplexers (cherrypicker switches) to combine IP packet streams (30, 32 of Figure 2).

H. Applicant argues, see page 8 (First partial paragraph), with respect to claim 15 that "Such an acknowledgement appears inconsistent with the Examiner's position in the rejection of amended claim 24."

The Examiner maintains the rejection because finding the channel capacity is independent from finding that a threshold has been exceeded in a data flow or channel. Furthermore, the embodiments in claim 15 and claim 24 are separate inventions and are constructed independently from each other.

I. Applicant argues, see page 8 (last full paragraph), with respect to claim 25 that "The cited portion of Monta relied on by the Examiner has nothing to do with switching a subset of data from one channel to another based on a determination that includes real-time data."

The Examiner maintains the rejection because Chiussi teaches using unused bandwidth from GB to BE flows (column 7, lines 17-22). The unused or extra bandwidth is reassigned by moving packets from one flow over to a different flow hence a subset of the streams are reassigned.

#### ***Conclusion***

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian O'Connor whose telephone number is (571)270-1081. The examiner can normally be reached on M-F, 9AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dang Ton can be reached on 571-272-3171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Brian T. O'Connor  
September 24, 2010  
Patent Examiner

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/DANG T TON/

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